

APPENDIX 5C. MICROWAVE OVEN DISPLAY CONFIGURATIONS

TABLE OF CONTENTS

5C.1	INTRODUCTION	5C-1
5C.2	DISPLAY CONFIGURATIONS.....	5C-1

LIST OF FIGURE

Figure 5C.2.1	Numeric Display	5C-1
Figure 5C.2.2	Alphanumeric Display	5C-1
Figure 5C.2.3	Dot-Matrix Array Display	5C-2

APPENDIX 5C. MICROWAVE OVEN DISPLAY CONFIGURATIONS

5C.1 INTRODUCTION

DOE reviewed various configurations of microwave oven displays in order to gain a better understanding of how the number of active elements, and hence display power consumption, can vary as a function of the digits or characters being displayed. Such an analysis helped DOE to determine the optimal method to measure a representative average standby power, given the possible variation in standby power during testing.

5C.2 DISPLAY CONFIGURATIONS

The simplest displays are the numeric variety, which can only show the time as a series of digits. A simplified representation can be found below in Figure 5C.2.1, which shows four individual digits. Each digit may have up to seven active elements (for the purpose of this discussion, an element is considered “active” whenever the consumer can view it in contrast to the background.) Thus, each digit has a changing number of active elements as the clock time advances or a cooking timer counts down.

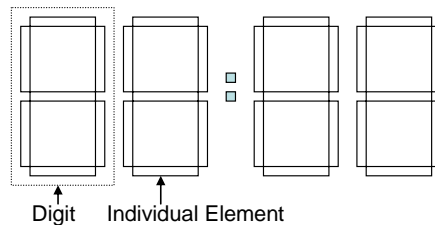


Figure 5C.2.1 Numeric Display

More sophisticated displays can represent alphanumeric characters via additional elements. A simplified version of such a display appears below in Figure 5C.2.2. Such displays usually have more than four digits, allowing an original equipment manufacturer (OEM) to scroll messages to a microwave oven user.

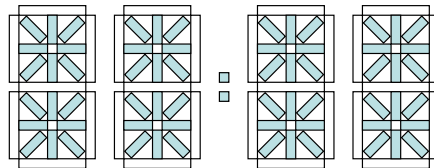


Figure 5C.2.2 Alphanumeric Display

The most flexible displays use dot matrix arrays. Such higher-resolution displays allow a microwave oven OEM to represent most Western fonts and some Asian fonts with acceptable clarity, allowing the most effective communication with a user. Changeable microwave oven controller daughter-cards allow an OEM to readily customize the microwave oven language to suit local markets. The array shown below in Figure 5C.2.3 is a simplified example.

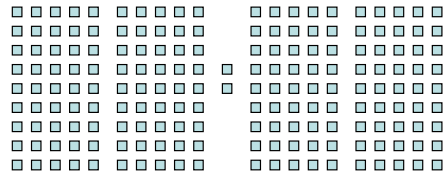


Figure 5C.2.3 Dot-Matrix Array Display